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The effect of vagal stimulation on intra-auricular block produced by pressure or cooling[1]. By T. Lewis, A. N. Drury, A. M. Wedd and C. C. Iliescu.

The auricular rate of dogs is controlled by rhythmic break shocks applied to the body of the auricle, and simultaneous records are taken from the body of the auricle and the tip of the right appendix. Regulated pressure is applied by means of a clamp across the base of the auricular appendix, thus producing various degrees of block between the body of the auricle and the right appendix; these blocks are recorded. The vagus nerve (right or left) is now stimulated and the ventricle ceases to beat (A–V block); at the same time the pressure block at the base of the appendix is *removed* in part or in whole. This effect is invariable, whatever the grade of pre-existing block (from a prolonged interval up to a complete block) providing that there is any change at all; in the last circumstance it is presumed that the pressure has also damaged the vagal apparatus in the clamped region. The reaction is not obtained after atropinisation of the auricle.

Similar effects of vagal stimulation upon intra-auricular block, produced in the same region by applying a metal tube containing flowing and cooled water, are obtained. Here again the block produced by cold is always relieved if any effect is witnessed; when there is no reaction it is presumed that the local vagal apparatus has also been damaged by cold. The same effects on the temperature-block are witnessed if, instead of stimulating the vagus, acetyl-choline is injected into the blood stream.

[1] A preliminary account of observations undertaken on behalf of the Medical Research Council, at University College Hospital Medical School.

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